AMERICAN BEFJOURNAL



Volume 9

1958

Number 2

FEBRUARY



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Our Cover Picture



IANHADY "MYSTERY GUEST" Mrs. Harriett M. Grace, Director American Honey Institute

WHO IS IT? - Pat Diehnelt, Editor

indeed Mrs. Harriett M. Grace, Director of American Honey Institute. Truthfully her picture was selected for January just because she is so well known and also because it was likely that an opinion of her many accomplishments for the beekeeping industry might draw a cross section of sentiment from the rank and file of bee folks. So it did. Repties came from all parts of the country and from Canada and there were no misses.

However there is a difficulty in the contest because we asked that mail about the cover should be timed to reach the publication office at Hamilton before the 15th of the month, an almost impossible situation. Second class mail, carrying the Journal is often delayed in delivery at post offices and hampers such a close schedule. Mail your answers to the

January's distinguished guest is cover contest anytime before the first of the succeeding month. I will decide the answers so the replies will be announced in the Journal the second month-in March for January and so on. So in the meantime play away.

Mystery Guest for February

Who is it? Positively no hints. Send your answers to be received at Hamilton, Ill., American Bee Journal Cover Contest, anytime during February. As stated above, answers will be evaluated and the results of the contest announced in April. Once we get this going, it will all smooth out. Send a short account of this gentleman's achievements not to exceed a single double-spaced typewritten page (about three pen or written note pages). Best story, \$5.00 and three years of ABJ; second two years; third, one year. Next four, selected books. Happy landing.

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The American Bee Journal

Hamilton, Illinois

February, 1958 Vol. 98, No. 2 Editor-G. H. Cale

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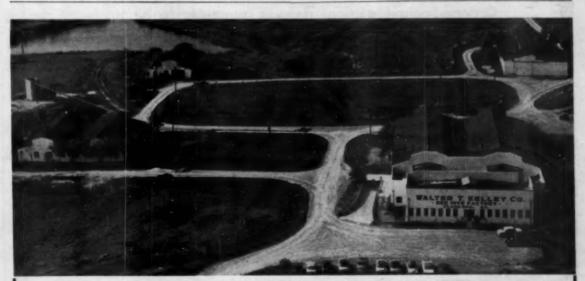
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York Bee Co Inside front cover



Here is a unretouched airplane picture of our beehive factory taken this past summer. The large building with our name on it contains our office, shipping room and warehouse and behind it is our wax works where we manufacture comb foundation. To the left is our beehive factory where we manufacture our beehives and behind it is our tin, welding and machine shop where we manufacture our tanks, extractors and hive loaders. We have no side lines — we manufacture bee equipment exclusively.

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The Commercial Beekeeper

Whoever sent this picture may wonder why credit is not given. Truth is his name is lost in file. Anyway it shows what a lively horse can do when he knocks over one hive that dominoes into others down the row. Quite a mess.

EFFICIENT BEEKEEPING

by Henry W. Hansen

Efficiency can mean the difference between operating bees at a profit or a loss, and a profit is one thing we all try to achieve but very few of us do.

One thing to keep in mind is cost. Always figure out, "Is this operation paying off? Is it something we could get along without, or is it something we will be paid back for either in honey production or dollars in our pocket?"

The first thing to do is to keep books. Know what your expenses are, know what it costs you to run a colony of bees and then try to cut that cost down as much as possible without sacrificing your crop.

It is also a good idea—in fact it is a must, really—to plan your operations ahead. In other words, every morning when you take off for the bee yards, know exactly what you are going to do that day. Lay out a little more than you think you can get done and then try to do it.

When we go out in the yards, we try to take the colonies in rotation and are prepared to do pretty much the same thing to all the colonies. Inexperienced help can be used with much greater efficiency if you let the help go ahead of you and prepare the colonies for inspection by taking off the lids, inner covers, smoking them lightly and perhaps removing the outside frame so that all you have to do is to proceed with the necessary work, whether it be looking for queens, checking for disease, or whatever your work is that day. Then the helper goes behind you, closes up the



colony and your time is used only in the actual important work.

In my case I have two men, one to go ahead of me and one behind, and I tell them what to do after I have inspected the colony. In that way you can use inexperienced help if they can take a few stings. Also you are there to set the pace and see that everybody is working.

Finding a queen sometimes takes almost half an hour. Could it be done faster some other way? In our operation we are running package bees and very seldom see the queen. When the bees are quiet and we see newly laid eggs and young larvae, we know the queen is there. Dawdling is a great temptation that must be avoided for efficiency.

Keeping mediocre queens, even if they can be bought at a cheaper price, is false economy. Here, too, record keeping is a great help. Sometimes a queen seems to be doing well and has a nice pattern of brood and the same number of combs of brood as the other hives, but still she lacks that something extra that puts a few extra pounds of honey in the hive.

Efficient beekeeping means taking good care of your equipment. It doesn't mean leaving your equipment go to rack and ruin to save money because that is false economy. We always have some time now and then when we can't go into the bee yards, and that is the time to paint equipment and repair whatever can be repaired.

Efficiency takes on many different forms and shapes. Keeping the honey house in order and various pieces of equipment in their proper places means saving of time. Whenever you can save time, you save money.

I was talking to a fellow the other day who laughingly referred to a man he called a "fuss-budget." The so called fuss-budget had reprimanded a fellow worker for not replacing a broom in its proper place. The f.b. explained, "You know where you left the broom, but I don't, and can't read your mind, so put it where it belongs and when I need it, I will know where to go to get it and not waste time looking for it."

Of course the neatness angle can be overdone, but it is a great help in your work to know just where everything is instead of spending time looking for what you need. If you take a day now and then to clean everything up and get it back in its place again, you will save time that later on can be used to much better advantage.

Relying on memory is not an efficient way to keep bees. We have a book in which we mark down our operations every night. One advantage is that we can see just when we last visited a yard, and another advantage is that we can go back the next year and the year after that to see just when we did certain things. Such a record will help evaluate your work

and correct your mistakes.

A record of this sort shows the results of your timing. As you know, the timing of various operations is very important. You can tell at the end of a season whether any particular operation should have been done earlier or later, having in mind the final crop.

Another way this record keeping comes in handy is in evaluating the different strains of bees. A strain of bees that is a superior producer in one location may not be a good producer in a different geographical location and that is why we like to test them.

When we try a new strain, it is on a limited scale in mixed yards with familiar strains. At the end of the season we weigh the hives. There is too much guesswork in most bee operations. If I can gain 10 or 15 pounds production over my present strain, of course those are the bees I will want. But I can't go out in a yard and tell whether one colony has 10 or 15 pounds more honey than the colony next to it. The only way that can be done is to weigh them.

An experiment of this kind should be carried on for more than one year, and then you can look back on your records and see just what you did with those bees in the way of care, and the production they made. Your records will tell you just what strain of bees you will want to keep.

Dakota City

THE SPRING BUILD-UP

by E. H. Adee

This year's honey crop can be what you desire or a very sad disappointment, depending upon the care and management you give your bees. Far too many beekeepers build their colonies up on the honeyflow rather than going to the necessary work and expense in building them up ready for the honeyflow. We are going to concern ourselves with the fundamentals necessary to build a colony that will be ready for the flow and get the crop in the hive (weather permitting).

In the fall, be sure you have enough honey in the hive so the colony will not starve during the winter. We figure on a minimum of 40-50 pounds per colony as winter stores. We always winter in two full-depth, ten-frame hive bodies which cannot possibly contain enough honey to build a powerhouse for the honeyflow, so for the past few years we have saved on the average 25 pounds of extra honey per colony and have found it to be the best investment we ever made. This consists of all our fall honey left in the comb and assembled ready to use in the supers at the rate of 20-30 pounds per super. As liquid honey we save all capping honey and all off-flavored honeys that are extracted. We have at least good average spring buildup territory but nearly all of this honey is consumed. We use honey for we have a better build-up on it and we consider it folly for a beekeeper to sell honey and buy sugar and then wonder why we have a surplus of honey on the market.



We feed our bees pollen substitutes consisting of soybean flour and brewer's yeast in outside feeders and would not use it any other way. It is the natural way for bees to bring in pollen and it really stimulates. If at any time on our early check we find a colony short on natural pollen we provide a frame of pollen. The pollen substitutes are provided for a period of 4 to 5 weeks before the supply of natural pollen takes care of their needs. If for some reason a colony has to be fed when the weather is cold it is fed liquid honey in a 10-pound pail with the holes in the lid over the hole in the inner cover and the bucket

inside an empty super for its pro-

If you find a colony with less than 15 pounds of honey at any time, "feed" even if the spring flow is on. for the weather may curtail the flow and a colony at that time of year. having a lot of brood, will soon consume this small amount and be forced to stop brood rearing, if not starve. Whenever brood rearing is curtailed for lack of feed in the spring, your honey crop, as far as the colony is concerned, is cut to at least half. In all liquid honey fed we use sulfa as a preventive of disease, and at any time we move bees before the honeyflow to a location we are not sure of, we give each colony a preventive feed. Our percentage of disease is so small we do not consider it a factor, but never make a mistake and take anything for granted, eternal vigilance pays.

You will find with plenty of honey and pollen your bees will carry on through the so-called spring dwindle with very little loss of bees in the hive as so many young bees have replaced the old overwintered ones. This will enable a person to make up winter losses by nuclei if he so desires. In making nuclei, it is advisable to use nuc boxes. We prefer the five-frame size, as the queen can lay several frames of brood before transferring. In making nuclei do not make the mistake of taking too much brood and bees from one hive as the bees in the hive are necessary to keep heat for brood rearing. We make our nuclei about the 10th of April and we have some cold weather after that so we use brood and bees from two hives to make each nuclei, using a frame of emerging brood, plus a liberal supply of other bees from each hive. We want early nuclei or we cannot build them up to the strength we desire for the honeyflow. At that time of year we always secure our queens from some commercial queen breeder.

We have quite a few honey locations that do not afford a spring build-up, so all the bees from these locations are moved to locations that can supply the bees with a spring flow. Unless you can supplement your feeding of pollen substitutes and honey with a good natural source of pollen and honey it will be a losing venture to try to supply the necessary feed to build up a strong We always stay on our spring build-up locations until our outyards are ready for the honeyflow. This necessitates moving the bees in hives that have from two to four full-depth extracting supers above the brood chamber, but they are there only for room so are not too hard to handle and as soon as the bees are placed on location they are ready to store honey without any backtracking to put on supers.

The methods we use will build "power houses" and I suppose the question arises as to how to keep them from swarming. We never worry about that as it is taken care of in the management and because we have over 1,000 colonies for each outfit to take care of, very little time can be spent on each hive. We always make an early check for a good laying queen, pollen, honey, and disease and after that check only for honey until the hives have on the average six to eight frames containing brood, then instead of reversing supers we make one complete check. We move all brood from the upper super to the lower super and place all empty combs above the brood thereby giving the queen a chance to expand rapidly. This enables us to check on the laying ability of the queen, also check for disease and remove any undesirable combs. If everything is satisfactory, that hive is not checked again but is given an extra super if heavy with bees and if not quite ready, marked for a super next run. From there on it is just a question of giving plenty of supers, but get them on. With a good hive, all the

supers should be on at least two weeks before the honeyflow.

Do not be afraid of getting a hive too strong. That kind of talk in my opinion is just an alibi for not having one's colonies ready. Bees do not reach a peak and then go down. If she has plenty of food, a good queen will reach a high level of brood production and then maintain that level from a month or

more before the honeyflow until after the honeyflow is well on its way. If you question this, measure the number of square inches of brood in ten or more hives in different yards every three weeks from early spring until after the honeyflow is on. It will show how wrong you are.

-Nebraska

(This article is reprinted from the American See Journal for March, 1952)



Scene in lewlands of the Mississippi Valley at Hamilton, Ill., in the days when Spanish needle covered thousands of acres each fall. Now they too are a see of corn and beans.

Spanish Needle Gives Way To Soybeans

by RALPH UNDERHILL

Arkansas has gradually lost one of its leading honey plants, but in many instances in the same areas this loss is being replaced by an equally important honey yielder. Until recent years thousands of acres of golden-blossom Spanish needle plants furnished an excellent flow of fall nectar at a season when the honey from other important sources was past.

The cultivation of several main field crops on the huge areas, where Spanish needle once flourished, has greatly reduced the importance of this plant; but at the same time that the acreage of these late summer and fall flowering plants was being decreased, enormous areas were being planted to soybeans each year. And an increasing number of colonies of bees are being hauled each summer to the Mississippi and Arkansas river valleys during the soybean blooming season.

The U. S. Department of Agriculture in Washington, in its final 1956 report, estimated that this state led all other states in production of the

soybean crop for beans for that year. The estimate showed that Arkansas had 1,509,000 acres of soybeans in 1956. Thus, the huge acreage of this crop, and the fact that soybeans in the alluvial areas of the river valleys provide a heavy flow of nectar, have brought an increasingly important honey crop to the front.

Three important factors are making soybeans valuable to the leading commercial beckeepers. The blooming season is during the summer when fair weather prevails. Daylight time is longer for bees to handle more nectar. Huge areas of soybeans are located in the plantation country.

Beekeepers can place many hives at each stop. When they reach the delta country, driving distances are not so great as where the honey crops are on smaller areas widely separated. Arkansas beekeepers who convey bees to the soybean areas are pleased with their experience with this honey plant.

Beebe Arkansas

THE PRODUCTION AND USE OF ROYAL JELLY

by M. G. DADANT

We are indebted to M. V. Smith, of Ontario Agricultural College, (See Gleanings in Bee Culture, Dec. 1954), to queen-rearing books like Laidlaw & Eckert and others and to a number of producers and packers of royal jelly who have kindly furnished us information.

Many of our readers have asked how to produce, store, and use royal jelly. This article is written, not with the idea of giving a cut and dried operation, but more to carry suggestions which may be used on a small or larger scale.

In the first place, we already know that royal jelly is secured from freshly started queen cells, and the recommendation is that such jelly be harvested as early as two or at most three days after the grafted larvae are introduced into the proposed jelly producers. Older jelly is not accumulated as rapidly, nor does it have the properties which make for maximum results when the jelly is used.

The Amateur Producer

Smith has shown that the average production of royal jelly runs from 125 mg. for two-day-old grafts to 225 mg. for three-day-old grafts. If we assume that the average recommended dosages are 100 mg. a day, taken in doses of 50 mg. morning and evening, preferably on an empty stomach, then the side-liner or amateur who wants the material for his or her own use would need the contents from one queen cell to last him at most two or three days, either taken in raw form, or in capsules.

So the amateur could with a few colonies, of course, supply himself with royal jelly by dequeening one or more of his colonies and then collecting the royal jelly from the cells formed by the queenless colony, be they few or many, and storing the accumulation in a refrigerator for future use. This seems simple erough, but there are difficulties in the maintenance of colony strength (we must have strong colonies for cell builders), so we would not recommend attempting amateur royal jelly production unless several colonies are available with which to work, and being prepared to be content with jelly production at the expense of honey production, and per-



haps the loss of a colony or two in the process of acquiring information necessary for learning proper procedure, or if more ambitious, the amateur might start a two-story colony, and introduce the prepared cells in the second body over an excluder.

Large Scale Production
In general, large scale production
follows, in effect, much the same
procedure as is used by the commercial queen breeder, except that
the method disposes of any need for
the queen rearing nuclei, as well as
for some other of the steps in queen
introduction, since we are interested
only in the jelly, which is obtained
within three days of grafting.

Our producer's first step, therefore, would be to assure himself of sufficient colonies to serve his needs as cell builders. These cell builders MUST BE VERY STRONG COLONIES amply provided with food, pollen and water, so that they do not stint either in the acceptance or the copious building of the grafted cell introduced to them.

These cell builders may be either queenless colonies or queenright ones, prepared generally in the following manner, bearing in mind that only by experience will one learn that some colonies "have the knack" for accepting and maturing more and better cells than others. Assuming that queenright colonies have been decided on, for cell builders, the queen is confined below an excluder

in the first or lower brood chamber. The second body or super is of drawn combs without sealed brood, but with nectar, pollen and open or uncapped brood; sometimes a third or even a fourth super is added above. On the first day after preparation, this cellbuilding colony is provided in its upper super with a frame of grafted queen larvae of 30 or 40 cells on cell bars. On the second day, another frame of grafted cells; on the third, still another frame of cells. though some producers find better acceptance if no new cells are added till the extant batch has been removed, using additional colonies for additional production. On the fourth day, the first frame of cells which has been in the building colony for three days is ready to be removed, the royal jelly extracted and the now empty cells, resupplied with a new graft reinserted into the colony for the production of another lot of felly.

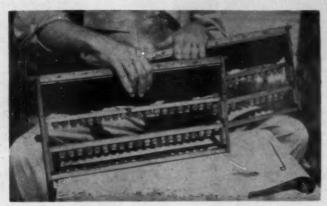
But the whole procedure is not as simple as it may sound. By all odds the cell-building colony or colonies must be kept well supplied with food, and it must have a continual supply of nurse bees (young bees) to do the cell building and to secrete the "pap" or jelly for the small grafted larvae.

Of course the onen larvae in the upper brood chamber have, by this time, become sealed, and must be dropped down to the lower broad chamber, and, in turn, the new ergs and brood from the queen in the lower brood chamber be raised up into the upper brood chamber always wetching for the possibility of meen cells in this upper body. Or, possibly some of this day-old brood may be used in grafting operations. There will too often be mitiestine circumstances which will necessitate getting both open brood, sealed brood, as well as grafting stock from other than the cell-building colonies to keep the latter at peak in strength. So a number of extra colonies besides those actually used in cell building should be at hand to provide these conveniences.

One would assume that a good nectar flow would solve some of the problems since it might eliminate feeding as one of the steps in jelly production, as well as in queen rear-



Grafting for royal jelly is identical to grafting for queens, even to transferring larvae into the cells. Same cells may be used two or three times.



Grafted cells are mounted on bars and given to cell-developing colonies. But after three days the jelly is removed, larvae discarded, and a new start made.

ing. But even here, it is possible to have "too much of a good thing." A heavy flow may cause overcrowding with nectar, may induce swarming tendencies, and may also plug the empty frames which should be on hand for the queen in the lower brood chamber. Normally, even with a nectar flow, a little syrup fed each evening may induce better results.

Some producers have succeeded well by confining the queen to only a part of the lower brood chamber. In this way, she lays more solid combs of brood, which can then be transferred as needed, rather than transfer combs which might be mostly brood and pollen.

Cell Grafting

Approved procedures of cell grafting will not be dealt with here. We refer you to any good queen rearing book for these; necessity for cups, dry, wet or double grafting, etc. As young larvae as possible should be used, preferably 12 to 24 hours old. Though some claim larger larvae may induce more copious feeding of jelly to them.

In queen rearing, after grafting, many breeders introduce these prepared cells to queenless, broodless "swarm boxes" for a maximum of acceptance, preparatory to giving these frames of grafted cells to the cell builders. Most, in royal jelly production, find about as good results by introduction directly into the cell-building colony, especially where wet grafting has been practiced, and carefully done, although in inclement or cool weather the swarm box gives better cell acceptance.

Jelly Removal

Small-scale removal of the jelly from queen cells, both the natural warmth, care in grafting, wax cell and artificial ones may be made by

means of either a standard commercial jelly spoon or better perhaps a broader wooden homemade one. Naturally the growing larvae are to be removed before the jelly removal is begun. However, for larger commercial production, it is recommended that some sort of a siphon be rigged up. A veterinarian's syringe, specially arranged, is used by many, by which the jelly may be removed more quickly; when with the larvae already removed, the process may be repeated by grafting in another lot of larvae and reintroducing the frame of cells into a cell builder, although it is questionable whether it is advisable to use the same cells for more than two or three graftings. For cleanliness and uniformity the jelly should be filtered through a fine cheesecloth or bolting cloth and stored immediately at refrigerator temperatures until ready for processing or for sale.

Jelly Preparation and Sale Storage of royal jelly should be

in jars of glass in pound or ounce capacity since most sales are made on this basis. Usual channels are the special preparatory material producers, or toiletry manufacturers, since at present it is used quite widely in cold creams. Some are offering royal jelly with honey. The amount of jelly added to the honey would determine the recommendations as to the daily amount to be taken.

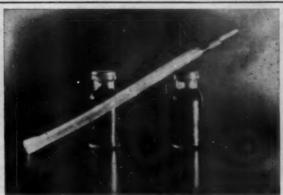
Generally for human consumption, the jelly is packed in 50 milligram capsules by houses which are especially equipped with the proper capsules to assure against deterioration and to do the work on a commercial scale. From our knowledge, likely 25,000 to 100,000 capsules would need to be ordered at one time, or the alternative of furnishing the jelly on a trade basis. Most generally the jelly would be sold in bulk in its natural state and capsules procured as needed.

Bear in mind that no claims can be made for the curative powers of the jelly in connection with the product itself offered for sale, since there have been no accepted scientific proofs of the efficacy of the product and it is not recognized by neither the American Medical Association nor by the U.S. Pure Food & Drug Department as a drug.

Such labeling as done should merely state that the material is royal jelly, the amount (25 mg., 50 mg. 1 oz., 1 lb. etc.) and that it is a supplementary food product and not offered as a therapeutic.



HONEY LOVER — My nephew, Bobby Lesiaw, then 1½ years (now 2½) who really loves boney. He con't wait until it is extracted. His sister seems interested in his eagerness to get an early taste. —Mr. and Mrs. Joseph Licina, Harvey, III.



LICE COLLECTOR — M. A. Alber, in Sicily, says aften there are 50 or more bee lice on one queen. This is his louse collector, an aspirator of nylon hase, a feather, rubber tap and filter that catches lice by the hundreds. Lice are then discharged into alcohol.



LADY BEEKEEPER — Jean Wolfe, Sahvarita, Arizona, has a nice little beekeeping outfit and is very much interested in bees. She packs her own honey and has no trouble selling It in the stores in her area. Ken Pratt, Apiary Inspector, Pima, Arizona



FLORIDA QUEEN — At left in the picture is Miss Mary Bredy, Winter Park, Fla., 1958. Honey Queen. She is the daughter of Arthur Brady, Orlando. With her are Carolyn Cribbs, Labelle, and Peggy Summers, Bristol, runners up in the contest.



ALUMINUM CANS — Continental Can Co., has developed these aluminum cans. A two piece drawn can at left, a three piece open top, third an extruded can and then an aerocol can. Flat cans in front. These may suggest some adaptation to honey packing.



FIND MER WITH A GEIGER — I have used this Geiger counter for some time. Queen is pointed with luminous or phosphorescent material such as is used on watches. Geiger picks up radiation. Locates queen on combs in matter of seconds. —A. E. Lamping, Orlando, Fla.



The Sideline Beekeeper

These sisters are ardent beekeepers. This picture has been mislaid so that is all the information we now have. Many religious groups have bees and become excellent sideline and often commercial beekeepers.

The Busy Bees Keep The La Macks Busy

by LUCY COLBERT

Lester La Mack of Racine, Wisconsin, assistant sales manager for the Dumore Co., is a very successful sideline beekeeper, operating, in his spare time his 40 colonies in two locations for a profit. He converted an old school house on a half acre of land into a honey house. This is ten miles from home and the other yard is five miles away in another direction. With only a station wagon

for hauling, the evenings and week ends are pretty well taken up with beekeeping. His average production is about a hundred pounds to the colony, part extracted honey and part comb honey, most of which is sold at the local farmers' market.

If there had not been a sugar shortage in World War II, this former tennis ace and holder of several championships, would not have become a beekeeper. Now in summer and fall he devotes all his spare time to his bees. In his opinion the future of honey has hardly been touched. There is the field of infant foods where honey is becoming more and more widely used and there is the field of allergy where honey may be of help. He believes in letting his honey become thoroughly ripened before extracting. It is then



Lester La Mack, anon a devoted Sideliner, tikes to produce bulk comb honey. One time he sold these combs nicely wrapped to a ready market.



Mrs. La Mack helps in marketing and she is a fine cook with recipes using honey. Hope to have some of her recipes later in ABJ.

heated to 130 degrees and carefully filtered. A second heating then takes it up to 160 degrees when it is bottled and is ready for distribution.

Mrs. La Mack began cooking with honey "in desperation" after her husband's beekeeping proved more successful than either of them anticipated. She is now an authority on the use of honey. She is also an antique collector and an expert in the almost forgotten art of caning chairs and working with a loom. In addition, Mrs. La Mack is secretary of the Racine Historical Society and is active in genealogical research.

(This story is from the Racine Sunday Bulletin, summarised and added to with the permission of J. D. McMurray, President. It also carried several of Mrs. La Mack's honey recipes which will appear on our recipe page later.)

Ward Langstroth's grandfather, Francis Ward Langstroth, was owner of a harness shop in New York City. He sold equipment to a trolley company. The trolley was pulled by horses.

His father, Clifford Barnes Langstroth, was a consultant engineer. He was a welding expert and was one of the first ones to use rods in welding.

Another son of Francis Ward Langstroth was a doctor. A daughter married a minister who played on the first football team for Princeton. They were both home missionaries in Kentucky and Tennessee.

In browsing through Rev. Langstroth's 98-year-old book, one realizes how little was known about the honey bee and its activities. To quote from the book:

"While I felt confident that my hive possessed valuable peculiarities, I still found myself unable to remedy many of the perplexing casualties to which beekeeping is liable and became convinced that no hive could do this, unless it gave the complete control of the combs, so that any or all of them might be removed at pleasure." (p. 14 and 15). In Chapter II of his book, Rev. Langstroth has entitled, "The Honey Bee Capable of Being Tamed." To quote from this Chapter:

"Many persons have been unable to suppress their astonishment, as they have seen me opening hive after hive, removing the combs covered with bees, and shaking them off in front of the hives; forming new swarms, exhibiting the queen, transferring the bees with all their stores to another hive; and in short, dealing with them as if they were as harmless as flies. I have sometimes been asked, if the hives I was opening had not been subjected to a long course of training; when they contained swarms which had been brought only the day before to my apiary."

According to Clifford Barnes Langstroth:

"As a child L. L. was spanked as he wore out the knees of his trousers while watching ants. He went to Yale made Phi Beta Kappa and entered the Yale Theological Seminary. He preached and taught school most of his life.



PAUL LANGSTROTH Five Generations from Lorrenzo Loraine by GENEVIEVE ROBINSON

Paul Langstroth, a descendant of the one who revolutionized the art of beekeeping, makes himself known after listening to a program given by his schoolmates in the Burlington School in Billings, Montana.

Paul, now a fifth grade student, must have found it difficult to sit still as a feeling of pride came over him, when before him the whole story of the honey bee and all her fascinating labors unraveled.

Not only did Rev. L. L. Langstroth (1810-1895) discover the spacing bees provided between their layers of honeycomb, and so was the first to make a bechive with removable frames, but he also wrote a book, copyrighted in 1859, entitled "The Hive and The Honey Bee." It was the original of "The Hive and The Honey Bee" as we know it today.

Rev. Langstroth was also given credit for the importation of Italian bees.

Paul is the son of Mr. Ward Langstroth, who is a geophysicist in the area of Geophysical Exploration for the Carter Oil Company. At the present time Mr. Langstroth is on a leave of absence in order to teach a group of geophysicists in Tulsa, Oklahoma. Paul has a little sister, Gail, 7 years. "The three important contributions of L. L. were the invention of the Langstroth beehive, writing of his book, 'Langstroth on The Hive And Honey Bee,' and the importation of Italian bees.

"There was a good deal written about L. L. but the only book is: "The Life of Langstroth' by Florence Naile, Cornell University Press, 1942. Miss Naile has promised that whatever royalties might come from the sale of the book will go to the Langstroth Memorial Fund at Cornell for building up the library

of beekeeping.

"On October 20, 1951, we attended the dedication of the garden of trees and shrubs of significance in beckeeping in the Morris Arboretum of the University of Penn. in Germantown, Pennsylvania. The garden was named in honor of L. L. William Langstroth Cowan and I were friends for years. He was a grandson of L. L. Langstroth. Morris Arboretum Bulletin September, 1952, has a complete description of the Langstroth Bee Garden and copies of the papers read at the dedication."

Two of Kermit's good single queen colonies.



He really has a monster swarm here and look at his bare torsal

EIGHT YEARS AND FORTY COLONIES

by KERMIT R. MILLER

I am a side-line beekeeper and expect to operate 40 colonies this year. Started beekeeping about eight years ago. Recently you have been requesting pictures of interest to beekeepers, so I am enclosing two pictures which may be of interest and you may use them if you so wish.

One picture shows two good single queen colonies. I operate single queen colonies and all equipment is 11-frame Modified Dadant. I winter the bees in the hive body plus two shallow supers. Am experimenting with various methods of winter hive wrapping. I feed bees in the spring as stores generally become short. Very much so this spring (1957) as the bees seem to have used unusually large amounts of stores, perhaps also the amount of stores may have been

less than normal due to a dry autumn last year.

The other picture is of myself preparing to hive a huge cluster of bees. There were five queens in the cluster. It would be interesting to know the number of bees in a cluster of such size. (I did not count the number of bees in the cluster. Ha!) This swarm produced enough honey to winter plus a surplus of two shallow supers. In recent years I have had very few instances of swarming.

Incidentally, I have all hive bodies and supers numbered and used to have the numbers facing the front as seen in the picture. However, I have begun using 1-inch auger holes in the hive body and a certain number of supers as upper entrances and I find that bees, especially early in

the season, spend a lot of time and energy in looking for the auger hole as they mistakenly associate the black numbers with the opening so now I am placing the supers on the stack so that the numbers face the rear where they belong anyway for easy reference.

Menahga Wisconsin

Beekeeping Merit Badge

The Boy Scouts of America National Council, New Brunswick, New Jersey, has just issued a 70 page merit badge booklet on beekeeping. It is beautifully printed with fine pictures with requirements and information for scouts who elect beekeeping for merit badge achievement. It has sound information about bees and would well do for 4-H work and other youth groups. If you are interested write to the Council.

Britain's National Show

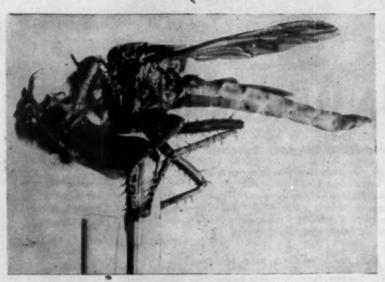
There were 1054 entries in the British 1957 National Honey Show, with 155 exhibitors. Next year the show is scheduled for October 2 to 4 in Caxton Hall.

Birmingham didn't do too poorly with their own show with 860 entries and 156 exhibitors.—"Beekeepers' News"

Acreages in Legume Seed Crops

Contrary to what might be expected from the results of the acreage allotment and soil bank provisions, the acreage in legumes has not risen as a consequence. Report of the Seed Crop Division of the U.S.D.A. reveals that acreages in 1957 as compared to 1956 of these crops are either about equal or just a bit better or less than in 1956. When comparisons are made of the 1957 acreages with the 1946-56 averages it is revealed that the 1957 acreages are down 15% for alfalfa, down 40% for red clover, down 40% for alsike, down 32% for sweet clover; down 12% for lespedeza; down 20% for crimson clover, down 88% for hairy vetch and only equal for ladino.

On the other hand per acre yields are up 40% for alfalfa, up 15% for red clover, up 60% for alsike, up 60% for ladino, up 5% for lespedeza. up 7% for crimson clover, and equal for hairy vetch.



Here is a specimen of a robber fly impaled on a pin. Often they become so numerous that they destroy a good many bees as Robert Brown says.

ROBBER FLIES IN TEXAS

by ROBERT N. BROWN

People up here (Wise County) often cannot have much success with bees. Some kind of insect destroys the field bees so the colonies become weak to the point where the wax moth gets in and that is the end. There are not many honey plants but the bees could make out if it were not for the destruction of the field bees.

These insects may be all over the fields. They kill the bees, draw out the insides and then go after more. You can't poison them. I have even seen one with a bumblebee. They start when the weather gets hot and remain until it gets cold.

A. H. Alex, at College Station, says that they are mosquito hawks or robber flies, common over Texas and several other states. Although honey bees are a favorite food they also feed on wild bees and wasps. In southern Texas they are especially destructive to queen bees in queen rearing yards. Alex reports: "We sometimes spend several hours killing these flies with paddles. After killing several hundred the loss of queen bees is greatly reduced for about two weeks until they again become abundant. This method takes too much time to be practical but it is effective.

"The young robber flies are reared in the ground a few inches below the surface and are not evident until they emerge from the pupal cases at the surface. There is no question about these flies killing many bees. In an apiary with fifty or more colonies the loss of bees in one might not be too great but where there are only a few colonies they may all be seriously weakened. They often rest on bushes or small trees where they watch for

the bees. I believe that spraying the resting places with household spray such as is used for flies and roaches would kill a lot of them. But care should be taken not to get any of the spray on the bees as they are very sensitive to it."

Decator. Texas

"A Swarm in May"

A new book by William Mayne, published by Bobbs Merrill, tells about a strange custom in an English Cathedral School where the youngest Singing Boy is always by tradition designated as the Beekeeper, being responsible for the school apiary. The Beekeeper must come before the Bishop one Sunday in May to sing a short solo and recite a ritual to assure the Bishop that the organist will supply good beeswax candles for the Cathedral throughout the coming year. John Owen, the present Beekeeper designate, tries in vain to wriggle out of being Beekeeper because he dreads singing a solo, but he gradually grasps the importance of the Beekeeper's duty. It goes back a long way, to the Middle Ages, when a boy who was small enough got up among the monastery beehives and helped collect the wax for the candles for the altars and processions.

Once a year the boy would take a candle and a swarm of bees into the Cathedral for the Bishop's blessing. John Owen finds that he is quite good as a real beekeeper so, in the end, the bees and the Singing Boys, the Cathedral and its music, and John Owen, Beekeeper, come tegether in a fine climax.

Birds and Bees

"According to an Associated Press release from London England, Royal Hairdresser, Riche has decreed that women's hair styles in 1958 should resemble the 'birds and beea.'"

It Can Now Be Said . . .

For the year 1957 the American Bee Journal has gained more readers than in any other single year in a long, long time.

So we might ask "What did we do that was right?" We hope that we did enough things right to impress a lot of beckeepers of all classes that ABJ is not only helpful to read but that it is fun to read. We have aimed to produce a "family" magazine, one that dad and mom and the kids can enjoy; one that impresses every beckeeping group with the feeling that ABJ will continue to try to lead the industry in all of its phases. We don't want the Journal to be some far off, chilly voice but to be a recognized force categing to the meeds and desires of both the reader and the industry.

force, catering to the moods and desires of both the readers and the industry.

Then too we want the journal to be influential. The real job of a magazine is to be big enough to be heard. So, in 1958, we want to move closer to the goals set for us. We want you, as a reader, to become a part of this effort. By now you are well acquainted with the changes that have been made in the makeup of the Journal for this year. But if you will take an active part in speaking your mind, or telling others your experiences or your plans in the pages of the Journal, you too will belong to the effort being made to step forward with your favorite magazine.



THE UNDERCURRENT

Question-How Shall We Build for a Brighter Future?

For a new venture the results this time were very gratifying. We hope that more readers will take a serious interest in discussing what they think are real problems to be considered for the future. To repeat our introduction last month, the subject for consideration will be given for the coming month in each issue along with the answers for the current discussion. Suggest subjects worth considering when you send in your answers. Your contribution to "Undercurrent" should be short. Try to get your answers here by the 20th of the month, preferably by the fifteenth, or they may not arrive in time to be considered.

Answers to January question- How Shall We Build for a Brighter Future?

Let's build by doing a better job today. Support the organizations working for the industry. Use your slack season to figure ways to make extracting equipment more efficient. Let's show more optimism and a "brighter future" results. Our market will grow as we have a growing young population. Visit your neighbor beekeeper. Get young folks interested. There is a growing need for the part-time job with extra earnings. Beekeeping is a good answer to that need.—Ronald Wulff, Charles City, Iowe

Central Florida beekeepers have sent a number of requests to our State Plant Board asking for a long range educational program to benefit the average beekeeper. We suggested three experimental apiaries in three sections of the state to prove or disprove such things as the effectiveness of drugs under our conditions. Beekeepers have to be told and shown convincingly the things the industry is up against. Then we will have real attendance at meetings. Beekeepers are tired of being told how good honey is. Intellectual ignorance might sum up what we get at bee meetings. We need practical research and successful conclusions.—Al Smith, Haines City, Florida

We can build for a brighter future by devising and adopting a simple and automatically effective selling program that will gradually step up honey sales from year to year and hold them there at a profitable price; some plan that will not interfere with or duplicate the present national advertising.—Cecil B. Hoy, Snowberry Apiaries, Armstrong, British Columbia

Maybe a brighter future can be influenced if they, who make glass bottles, design something more modern than the present output of glass jars. The cosmetic makers have found that the shape of the bottle is vital to the sale of the product. But honey is offered for

sale in the same old containers that have been in use for fifty years. Let us have glass pitchers or decanters or other fancy shapes. It would increase the attractiveness of the honey and help it to sell.—James C. Ford, Newport, Vermont

Perhaps we can build for a brighter future by revolutionary thinking to bring peak efficiency. Suggest: Mechanization of all hive manipulation; use of radioactive paint and Geiger counter for easy queen location; an all out support of honey publicity organizations to raise national honey consumption to 3 pounds per year per person.—Robert H. Rusher, Hyannis, Cape Cod, Mass.

The science of breeding bees for gentleness, disease resistance, less swarming, and high productions has reached a very high level, but the promotion of honey has not been keeping pace. The publicity in National Honey Week is fine, but what about the other fiftyone weeks of the year? People do eat 365 days annually and the honey industry is not getting its share of the consumer's dollar. Check the per capita yearly consumption of honey. It is a disgracefully low figure.—
Thomas Noonan, Des Moines, Iowa

We can only build a brighter future by complete unity of every phase of our industry. To me the two most important phases are: 1) rearing better individual queens; 2) improvement of strains. This can be accomplished by queen breeders by forgetting volume and mass production and undertaking quality instead of quantity. Our cost as honey producers will be no higher considering the losses we have been taking. Labor will be lower at both ends and net earnings will average about the same at both ends (maybe leaving us more time for fishing).—Harry J. Rodenberg, Jr., Wolf Point, Montana.

Some very nice subjects are suggested for future discussion. From them we have chosen the following for March:

How Shall We Encourage Young People To Enter The Industry?

(from Ronald Wulff, Charles City, Iowa)



How To Do It

Address "How-to-Do-It," American Bee Journal, Hamilton, Illinois. The item we think to be the best will be used first, with a picture If you wish, and the winner's subscription will be extended three years. For the three runners-up, each a full year.

Number One

Removing Honey without Robbing Distribute enough supers of honey behind the hives to accommodate all the honey when the supers are stacked four to six high. Use the acid boards and put the supers on the pallets. As each stack is loaded, slip a bag over the stack which will reach to the ground, completely covering the stack. These bags can be made from any suitable material. After the honey is all off and covered, drive close and lift on the truck with hive loader. More honey can be taken on at the next yard. The load is well protected against robbers regardless of the condition of the super bodies or shifting in transit. The bags are lifted off after being wheeled off at the honey house. Since every stack is handled as a unit there is no drip or chance for robbing to start.-W. F. Shuck, Malabar, Florida.

Number Two

Mice in the Bee Yard

If you can't keep the mice out of the hives in the bee yard, invite them in. Place hives, that are empty but with covers and on bottoms, in the yard. Raise the entrance of each one about an inch and put a couple of "break neck" mouse traps baited with fat bacon inside. In my first trial I caught 127 mice, moles and shrews. Now I never have mice in the colonies with bees.—W. Medlock, England.

Number Three

To Prevent Wire from Unrolling In wiring frames, when the wire on the spool is cut it always unwinds. To avoid this, use a piece of

eight-inch copper tubing about four inches long, curved slightly and fastened to the wiring board between the wire spool and the frame. Pass the wire through the tubing when the wire is cut and it will not allow the wire to unroll.—C. A. Von Harten, Evansville, Indiana

Number Four

To Prevent Honey Overrunning

Every one knows how annoying it is to have honey overrun the top of the cans when they are being heated in a hot water bath. I went to my auto supply dealer and bought a sump gun for \$2.95. It is used by mechanics to remove oil. Now when the crystallized honey begins to melt, the gun removes a pint of honey at a time without having to lift the can to drain the overflow.—Al Bzenko, Rochester, Michigan

Number Five

Tires for Hive Stands

Do not throw away those worn out automobile tires. They make good hive stands and will last for years. To keep water from collecting in them cut two or three holes in the side of each tire next to the ground.—Paul W. Johnson, Peru, Indiana

Number Six

One Man Moving

One man can lift a one and a half story hive onto a truck. If it has several supers, put the top half on truck, with cover on and push forward. Then push the lower half in place beside it. After several are so placed, get on the truck and put the parts together as they were before loading. Bees are moved without screening. We lost no colonies moving 18 yards in the hottest summer weather.—J. A. Smith, Davenport, Florida

Bringing the Colonies Up to Strength in Spring

I take nurse bees from my strongest colonies and shake them in front of the weakest ones, without bothering

those of medium strength. (Just shake all the bees of the comb in front. The field bees will return to the hive from which they came. The young bees will go into the new hive. Ed.) With a spring dwindler I start with a shake from one comb, increasing the number later. Never disturb it beforehand to look for the queen. With normal weak colonies, try three combs on the first shaking, repeating in two days until all hives reach equal strength before the flow. Early swarming is eliminated and all colonies are about alike during the flow.

Sirup and Supplement

We start feeding sugar sirup and pollen supplement when the weather breaks, about the middle of March. For sirup, we use six parts sugar to two parts water, with one sulfa tablet. This stimulates brood and protects against disease. The substitute is fed according to the directions with it but be sure to cover the cake with a sheet of wax paper to prevent it from drying out. Donald Bohac.

Wisconsin

Rope for Smoker Fuel

I had been using burlap bags and sometimes sumac bobs for smoker fuel, but one day last summer I ran out of both and cut up some old rope into short pieces to fit into the smoker. It worked so well that I have used rope ever since and find that it is superior to other fuel and lasts longer.

H. W. Wightman, New York

Ease in Nailing Frames

To prevent frames from splitting when they are nailed together, soak all parts to be nailed in water about two to five minutes. This way, you will seldom find any frames to be repaired, and the nails are driven twice as fast and straight in the wet wood.

Bruno Racine, Quebec, Canada



The Beginner and His Bees

by W. W. Clarke, Jr.

Some of The Things the Beginner Should Know About the Beekeeping Industry

(Continued from January)

This picture has been used before. It is from Elisworth Meineke, Meineke's Honey Farm, Palatine, Ill. Poor kid, she really spilled the honey and broke the jar. And she's scared!

In general, beekeeping today depends chiefly on cultivated plants and pasture crops for a source of surplus honey, although many wild plants contribute to the support of the colony. Thus we find large apiaries in the Midwest, where legumes are the main source of surplus honey; in the irrigated valleys of the Intermountain area and the West, and in California. The flora of the Northeast and eastern states are more inducive to smaller apiaries. although there are many areas where large beekeeping operations are possible. The buckwheat area of New York is an example. In the South, climatic conditions generally are more inducive to specialization in queen rearing and the production of package bees.

Who Should Keep Bees

To be successful the beekeeper must be a naturalist and know how to handle bees in accordance with their behavior. He must know how to do the right things for his bees at the right times. He should study the literature concerning bees and beekeeping. Because of changing conditions, his ingenuity will be taxed to know what to do at times. Most beekeepers are always trying new and different things, adding much to the interest of their profession.

Altogether, beekeeping is a unique industry attracting people of all classes. In it are professional men, ministers, teachers, business men, mechanics; almost every type of individual. Many women are successful beekeepers. Many of the duties in the care of bees, such as preparing honey for market and rearing queen bees, are more suited to the capabilities of women than to men.

Some individuals may be hypersensitive to bee stings, or nervous,

and probably will find it difficult to keep bees. The majority of persons, after having become used to the sting of the bee, will suffer no ill effect and develop immunity to the poison of the sting.

Returns From Beckeeping

Often several hundred pounds of honey are obtained from a single colony in a single season. Nevertheless the average production per colony for the United States was 36.3 pounds in 1942 and 38.6 pounds in 1948. The average is, of course, larger for commercial operators and experienced beekeepers. The industry is not a path to quick riches, but most of those who become fascinated with beekeeping find in it something for their spare time which will give them a sound return on their investment and also provide interest and satisfaction.

The cost of operating a colony of bees varies from one or two dollars up to as high as seven or eight, depending on the cost of labor, materials and size of crop, with an average operating cost of approximately five dollars. This average operating cost is a good measuring stick to use in determining the possibilities of a location.

Laws Affecting The Honeybee

State laws governing the control of bee diseases and the moving of bees should be completely familiar to every beekeeper before moving bees from one state into another or from place to place within the state. Inquiry should be made to see if the move may be performed in accordance with the laws set up to control bee disease. Some states prohibit the entry of bees on combs or the entry of beekeeping equipment which has been used elsewhere.

Federal laws regulate the importa-

tion of queen bees for use as breeding or commercial stock in order to prevent the introduction of any disease not present in this country. Such importations only may be made with the consent of the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture. Importations will be made by the Bureau for breeders, beekeepers, and institutions engaged in research. The shipments are received by the Bureau, examined for undesirable infestations, and if satisfactory forwarded by them to the purchaser.

A swarm of honeybees is considered by law as being wild in nature and belonging to no one, not even the owner of the land on which they are found, unless the owner of the land takes them into his possession. They remain his property only as long as he maintains control over them and once they swarm and occupy a natural place, like the hollow of a tree, they become the property of the first one who takes possession of them.

While bees are in the possession of an individual, the owner is liable if they do injury to other people, animals, or property. Consequently care should be taken in choosing suitable locations where bees flying to and from the apiary are not a hazard. Many municipalities have ordinances which forbid the keeping of bees within the corporate limits or restrict them to certain zones. The legality of the first type of ordinance has been denied in many cases.

This finishes the article begun in January. Now Bill needs more Beginner questions. How about writing him with your problem as a beginner. Maybe we can get enough steam under this idea to finally have volume enough for his page in beginner questions and answers.

THREE BANDED ITALIAN PACKAGE BEES AND QUEENS

Shipped anywhere in United States and Canada

1958 PRICES - FOB Hampton, South Carolina

Queens 2 lb. & 3 lb. & 4 lb. & 5 lb. & (each) Queen Queen Queen Queen Queen 1-24 Packages \$1.40 \$4.25 \$5.25 \$6.25 \$7.25 \$25-99 Packages 1.30 4.00 5.00 6.00 7.00 100 up Packages 1.20 3.75 4.75 5.75 6.75

(For Queenless Package deduct Price of Queen)

Queens clipped and painted if desired Health Certificate with each shipment. Guaranteed safe arrival.

Shipper rated in Dun & Bradstreet

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We will feed Fumidil B. to control any possible Nosema.

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2 lb. w/reg. queen 3 lb. w/reg. queen

1 - 25 _____\$4.75 each \$5.75 each 26 - 99 ____ 4.50 each 5.50 each 100 up ____ 4.25 each 5.25 each For Island Hybrid Queens add 30c per package

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Three Band and Pure Italian Hybrid Package Bees and Queens



We Ship Pure Worker Bees By Mail, Express or Truck — With Queens Introduced or Not Whichever You Like.

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Each with a young Laying Queen

Lots of 2 lbs. 3 lbs. 4 lbs. 5 lbs. \$7.55 1 to 11 Each _ _\$4.25 \$5.35 \$6.45 12 to 20 Each . 7.20 4.05 5.10 6.15 30 or More Each. 3.85 4.85 5.85 6.80

Tested Queens-\$2.00

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FUNSTON, GA.

Colony Gains and Losses at Two Locations in Louisiana

E. OERTEL

Entomology Research Division, Agr. Res. Serv., U.S.D.A.¹

Daily weighing of a normal colony of honey bees on scales shows when the honeyflow begins, when it ends, when supers are needed, and the amount of honey used during periods of dearth. Proper management of other colonies in the apiary can be based upon the requirements of the scale colony.

Information has been obtained concerning scale-colony gains and losses at Baton Rouge on the Louisiana State University campus and at a location 4 miles away (Ben Hur). Within the flight range at Baton Rouge are white clover pastures, cultivated land, waste land, and urban property. From 10 to 20 colonies and from 50 to 100 nuclei were maintained at this location. The colonies at Ben Hur were in what is believed to be a fairly typical Louisana white clover location. Several hundred acres of clover pasture, some woods and waste land, and fields of cultivated crops are within flight range. From 15 to 40 colonies were kept at this location. There has been no indication of overstocking at either location.

Table 1 gives the average monthly gains or losses of one colony of bees from 1929 to 1934, and 1949 to 1956, and four colonies from 1935 to 1948 at Baton Rouge, and of four colonies from 1942 to 1948 and seven from 1949 to 1956 at Ben Hur.

¹ In cooperation with Louisiana State University.

We believe that many beekeepers in the South are unaware of the fact that large yields of honey per colony can be obtained if approved methods of management are used. The small yields obtained when weak colonies were on scales show plainly that such colonies are not likely to produce a profitable honey crop.

Honey and Pollen Plants

The principal nectar-yielding plants for the two locations were white clover, willow, rattan, wild grape, vervain, eardrop vine, and pepper vine. The principal pollen-producing plants were willow, dewberry, blackberry, white clover, corn, partridge pea, boneset, and goldenrod. Their importance was not necessarily in the order mentioned.

Colony Management

The colonies on scales were in Standard Langstroth equipment. They were not given special management beyond attention to the following: (1) requeening each fall, (2) adequate stores of honey, (3) abundant room for brood rearing and honey storage, and (4) reversal of position of the brood chambers to put the brood just above the bottom board with empty combs above the brood chambers; this was done twice before the honeyflow started and once during the summer.

Honeyflow

The main part of the honey crop

was gathered in April, May, and June. The honeyflows started from mid-March to early in April and lasted from mid-July to early in August. In 1950, at the Ben Hur location, the colonies gained each month from March through October, for an

Prior to 1943 there was a fairly dependable honeyflow from goldenrod in October, but since that year the colonies have seldom had a net gain in that month. Regular mowing of nearby pastures plus compulsory mowing of vacant lots have greatly reduced the number of goldenrod blossoms at the two locations.

average net gain of 311 pounds dur-

ing these eight months.

Unfavorable weather - frequent showers or high winds-was associated with small honey crops. For example, in 1946 the honeyflow was practically ended by 9 days of rain between May 12 and 26 and with 13 rainy days in June and 17 in July. Above-average honey crops in Louisians are generally associated with below-normal rainfall during the honeyflow.

Losses in Weight

Milum⁹ showed that the average winter loss of a scale colony in eastcentral Illinois over a period of 20 years was 20 pounds in 140 days, about 4% months. At Baton Rouge and Ben Hur the average losses from November through February totaled 26.7 and 25.6 pounds, respectively. However, during this period there was probably some incoming nectar. During warm periods in February colonies gathered enough food for maintenance and increase of brood

Table 1.-Monthly gains or losses, in pounds, of colonies of bees on scales.

Month	Baton R Avera	ouge (1929-56) ge Range	Ben Hur (1942-56) Average Range		
January	- 6.4	- 1 to -13	- 6.5	- 4.5	to - 9
February	- 8.8	- 8 to -14	- 6.3	2	to -10
March	1.0	33 to -20	10.0	40	to - 9
April	42.5	92 to - 5	55.4	101	to 14
May	50.0	185 to -18	81.0	115	to 40
June	24.0	66 to - 5	50.0	85	to 19

33 to - 5 28.0 62 to 4.5 July 12.5 1.0 August - 4.0 7 to -15 to -14 -10.7to -20 September 3 to -23 - 9.0 9 October -10.081 to -11 - 2.0 20 to -15 November - 7.0 - 1 to -16 - 7.8 - 2 to -14 December - 5.0 -1 to -8- 5.0 - 3 to NET GAIN 78.6 -54 to 209 188.8 99 to 311 rearing. Losses in February were only slightly greater than in December, when no brood was reared. The principal increase in brood rearing in the vicinity of Baton Rouge usually takes place between February 15 and April 1.8

² Milum, V. G. 1956. An analysis of twenty years of honey bee colony weight changes. Jour. Econ. Ent. 49(6): 735-738.

⁸ Oertel E. 1948. The importance of brood hearing to honey production in Louisiana. Amer. Bee Jour. 88(2): 74-75.

Contrary to what might be expected, losses in weight in August and September were sometimes greater than in November through February. The fall peak of brood rearing occurred in September, at which time little nectar was available in the vicinity of Baton Rouge.

At the Ben Hur location in 1955 the average loss from July through October was 47.5 pounds and in the following winter only 15 pounds. From a practical standpoint at least 50 to 60 pounds of honey should be left on each colony at the end of the honeyflow in order to provide for late summer and winter losses. ever, under unfavorable conditions this might not be enough for a normal colony. In such an event the beekeeper would have to feed sugar to colonies in need of stores. Probably most beekeepers in the South would need additional combs and hive bodies to provide room for stores and the surplus honey.

Gains in Weight

The average net gain per colony at Baton Rouge was less than half that at Ben Hur. Since colony management was similar at the two places, the difference in favor of Ben Hur must be the result of the location.

At Baton Rouge the two smallest yearly individual colony gains, 10 pounds in 1933 and 23 pounds in 1945, and the net loss of 54 pounds in 1951 were associated with weak colonies. Their weak condition was caused by queenlessness or poor queens early in the season. The weak colony of 1951 was not typical of the others in the apiary. The lack of surplus honey from the colony shows how costly to the beckeeper a weak colony can be.

Discussion

The figures in Table 1 suggest that

in southern Louisiana we can expect a honeyflow of 4 months' duration—April, May, June, and July—and that for 7 months, colonies will not get enough nectar to maintain their weight. In 1 month, March, colonies may or may not obtain sufficient nectar to maintain weight. The beekeeper should not expect the honeyflow to begin until early in April. Daily gains in the vicinity of Baton Rouge usually are small, from 1 to 5 pounds per day.

The honey produced by colonies on scales shows that relatively large honey crops can be obtained in some parts of the Southern States. Mitchener's reported that a number of scale colonies in Manitoba, Canada, made average annual total gains of 258 to 182 pounds per colony from 1925 to 1954. The honeyflow in Manitoba usually began about June 21 and ended about August 21.

⁴ Mitchener, A. V. 1955. Manitoba nectar flows 1924-1954, with particular reference to 1947-1954. Jour. Econ. Ent. 48(5): 514-518.

It is important that southern beekeepers who depend on early nectar sources—for example, citrus, holly, tulip tree, white clover, or tupelo provide for their bees so that the colonies will build up rapidly early in the season. It is essential that a vigorous queen, ample reserves of pollen and honey, and sufficient room for maximum brood rearing be supplied to each colony. Apiaries only a few miles apart may vary considerably in the size of the honey crop, as is indicated in the table. A location can be tested by the use of a few colonies for 2 or 3 years. If the average yield is satisfactory, additional colonies can be moved to the site, but if yields are low the site should be abandoned.

Summary

Monthly gains or losses in weight of one to seven colonies of bees on scales are given for two locations in Louisiana, 4 miles apart. Average net gains were 78.6 pounds at Baton Rouge over a 28-year period and 188.8 pounds at Ben Hur over a 15year period. Most of the honey was stored during April, May, and June, but in some years net gains were obtained in March and July. Losses in weight from November through February averaged 26.7 pounds per colony at Baton Rouge and 25.6 pounds at Ben Hur. Losses in August and September, during the fall upsurge in brood rearing, were sometimes greater than the winter losses.

If a satisfactory honey crop is to be obtained, colonies must build up rapidly in those parts of the Southern States where the honeyflow begins late in March or early in April. The size of the gains reported here indicates that with the use of approved methods of colony management honey yields in Louisiana and other Southern States can be increased.

American Bee Journal

Science Editor

6

DR. WALTER ROTHENBUHLER, head of Apicultural Research at the lowa State College, Ames, lowa, has been appointed Science Editor of the Journal. He will evaluate scientific papers and short Items and try to put us in touch with the latest and best that is resulting from research studies. This will give readers material from a wider field of contact than has before been possible.





Entomologist Filmer examines the work of bees in their hive which was one placed in New Jersey cranberry bogs to increase the pollination of the cranberry blossoms.

Bees and Cranberries - A Winning Combination

by ALLAN A. SWENSON

Bees and cranberries are a winning combination in New Jersey. That was the contention of Dr. Robert S. Filmer, an entomologist at Rutgers University. And by rating the cranberry yield by 50 per cent in experimental plots in New Jersey, he proved his theory.

New Jersey is one of five states favored by nature with the right climate and soil for good cranberry production. The acid, sandy-peat soil, and the bogs which can be flooded purposely at certain seasons to prevent frost damage and help control ansects also occur in Wisconsin. But while Wisconsin cranberry growers watched their state average climb to 50-plus barrels per acre, New Jersey state averages slumped to about 16 barrels per acre.

After intensive study, Dr. Filmer, found that Jersey's low average yield was due in large part to below par pollination of cranberry blossoms by honeybees.

Advanced forestry practices of

controlled burning of the underbrush surrounding the bogs was found to be responsible for drastically reducing the population of wild honeybees. No Bees—No Berries

Dr. Filmer made this suggestion. "If you put back the bees, then they'll put back the berries." Under his supervision, several experimental plots were set up. Each acre was allotted one hive of domesticated bees, populated by about 50,000 bees.

The results proved his theory. Yields from these test plots jumped 50 per cent. When the population of bees per acre doubled, the cranberry yield was raised another 60 per cent. Cranberry producers were delighted.

Now that it was realized that bees mean more berries, more cranberry producers began to utilize them. Dr. Filmer has even predicted that perhaps 100 barrels per acre may someday be possible in the New Jersey cranberry bogs. That amounts to a seven times multiplication of the present production average. And in the \$1,750,000 New Jersey cranberry industry, that will make everyone hanny.

The fact that cranberry blossoms are a delicacy to the bees produces a winning combination—bees and blossoms. New Jersey cranberry growers are certainly in favor of such a winning combination as that. New Jersey

"Package Bees, Their Introduction and Care"

A new Bulletin is available from the Experimental Farm at Brandon, Manitoba, "Package Bees, Their Introduction and Care," written by John A. Geiger and J.C.M. L'Arrivee. It is for beginners in beekeeping on the prairies, yet it contains up-to-date information for the most experienced beekeepers. It is well illustrated and goes into the subject on a step by step basis. If you are interested write to either one of the authors.



Florida 4-H Club Camp Apiary Boosts Energy of Florida-Auburn Track Team With Honey

Percy M. Beard, Gen. Mgr. of Athletics and Samuel R. Lanford. Head Trainer of Intercollegiate Activities at the University of Florida, Gainesville, recommends and provides their tract teams with honey for a quick and a stored supply of energy

W. H. Hutsell, Head Track Coach, Auburn, Ala., says his track teams are given honey before the meet, to furnish a supply of stored energy sugar and to renew the supply after the meet.

Mr. Hutsell says most athletic departments over the country use honey in their training activities to furnish a ready available supply of dextrose sugar. Honey is also given the University of Fla. football team.

Florida won their track meet but lost to the Auburn football team. They had plenty of honey for the track meet as you can see, but may have been short on honey for the foot-

The honey presented the Athletic Dept., was produced at 4-H Camp McQuarrie, located in the Ocala National Forest, near Astor Park.

Left to right: John D. Haynie, Ex. Apiculturist, U. of Fla. W. H. Hutsell, Head Track Coach, Auburn, Ala. Percy M. Beard, Gen. Mgr. Athletics, U. of Fla. Walter Welsch, Assist, Track Coach, U. of Fla., Gainesville, Florida.

Cooperative Efforts on Nosema

Dr. Clay Lyle, Dean and Director of the Agricultural Experiment Station of Mississippi State College, located at State College, has announced that they have signed an agreement with the Entomology Research Division at Beltsville, Maryland, to conduct a project on Nosema disease. Prof. C. A. Wilson and Dr. L. L. Ellis of the Miss. Zool. and Ent. Department will conduct the work which will run for approximately three years.

Kentucky Hoping For Funds

Kentucky beekeepers were informed that Director Bray of the State Bureau of Markets has recommended a budget of \$10,000 for the operation of the Kentucky bee law which is to be acted upon by the coming session of the Kentucky legislature.

American Bee Journal

Industry Editor ROBERT BANKER, CANNON FALLS, MINNESOTA, is Industry Editor for ABJ. He is Secretary

of American Beekeeping federation so he is well known to beekeepers everywhere. He w valuate industry items and also keep the Jaurnal in touch with new developments in thi industry which should be brought to the attention of readers.



RECOGNITION FOR ROYAL JELLY

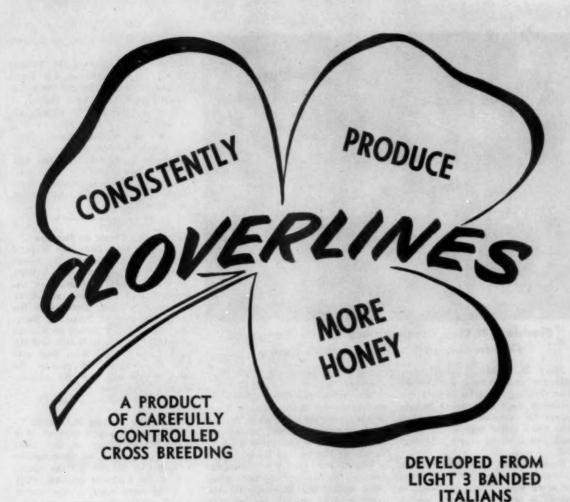
For the first time we believe, there has appeared in the Federal-State Market News Service (California Edition) not only market news on honey and beeswax but two lines added as follows:

Royal Jelly-Early December, \$15.00 an ounce

Late December, \$13.50 to \$14.50 per ounce

We hope that this signals increasing importance for royal jelly. However we must not raise our hopes too high until we are able to have this product registered as a drug and so recognized by the National Food and Drug Department in Washington. This likely will not happen until there are scientific facts from reliable sources to substantiate some of the claims for this product. Occasionally popular use and approval may force such recognition. In the meantime let us warn our readers who may be, or hope to be, royal jelly suppliers that no medical claims can be made for it in any literature accompanying the product, other than to say that royal jelly is for supplementary food purposes only and that no therapeutic claims are made for it.

February, 1958



1958 PRICES

	1908	PRICES	
	ANY QUANTITY	ONE PRICE TO ALL-	
2 lb. pc	ackage with CLOVERLINE queen.	Shipping Wt. 8 lbs.	_\$3.75 each
3 lb. pc	ckage with CLOVERLINE queen.	Shipping Wt. 9 lbs.	4.75 each
4 lb. pc	ackage with CLOVERLINE queen.	Shipping Wt. 10 lbs.	5.75 each
5 lb. pe	ackage with CLOVERLINE queen.	Shipping Wt. 14 lbs.	6.75 each
14		Extra CLOVERLINE queens	1.25 each
55:-	We sell GOOD BEES, explicitly developed grade only We have no disease and all our apiaries of and Directions for Handling come with estatisfaction guaranteed. Your choice of or your truck. All packages are FOB C Postpaid. BOOK YOUR ORDER EARLY FOR CHOILITH.	CROSS BRED CLOVERL ore state inspected. Certificate of H very shipment. Live delivery and com shipment via Parcel Post, Railway Er olumbia, S. C. Extra Queens sent Air	INES. lealth iplete coress Mail
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Your Questions Answered -

Honey Spread

In our school we serve honey in school lunch but it is quite measy. Is there any way in which we can convert our honey to a honey spread? We have quite a bit on hand and would like to eliminate the dropping of honey on tables, chairs, and floor. We have a well equipped kitchen and gotd facilities

Reuben E. Koening, Principal, Independent School District No. 29, Ceylon, Minn.

You can cause your liquid honey to become finely granulated by adding about 5 per cent of ground crystallized honey or previously processed finely granulated honey to your liquid honey. Stir thoroughly and store at about 57 degrees F. until fully crystallized. In your case you can start by adding the "honey spread" you now have to honey at room temperature, placing it in an ice box which is not set too low. In a matter of days, you should have a product similar to that which you desire.

Drugs

I intend to feed my bees sulfathiazole powder as a prevention. How much should I use with powdered sugar? May it be applied successfully to the combs, top bars and brood? How often?

D. G. Aanestad, Larimore, North Dakota

The formula for the use of the powdered sulpha is ¼ teaspoon to ¾ teaspoonful of powdered sugar. This may be dusted over the combs of brood and top bars. Apply it three times between the start of brood rearing and the beginning of the flow. You should have no trouble with American foulbrood.

Drying Comb Honey

Is there a machine to dry comb honey that is cut to place in bottles? E. L. Baker Luray, Virginia

The A. G. Woodman Co., Grand

Rapids, Michigan, makes a cut comb drying tray which may be used to drain honey from cut comb by gravity or to place in any extractor to whirt the honey dry. In a machine you should have two or four or whatever it will take to balance the machine.

Strange Case of Reflex

While sorting old records for storage a co-worker of mine found a honey bee pressed between two pages of records dated October 1920. From the dust accumulation it was obvious the records had not been referred to for ten or more years. The right front leg of the bee soon began to move and after about five minutes the left front leg moved several times. The body did not move.

Mrs. C. S. Tasker Tacoma, Wash.

Of course this can only be explained by the action of physical forces. Apparently it was the influence of moisture on the tendons of the legs that caused the movement. The fact that some time had elapsed before the movement occurred supports this supposition.

Answered by Dr. M. H. Haydak University of Minnesota

Zinc Conditioner

Two materials are recommended for the interior of galvanized tanks and extractors to protect honey from reacting with zinc or iron. One a galvanized zinc conditioner. Can you tell me where I can obtain this conditioner?

Shelton Lafleur, Opelousas, La.

Zinc conditioner is manufactured by many chemical companies and is manufactured mainly for the purpose of sale to the automotive trade. I think that you should have little difficulty in obtaining this material either from a paint company or from a chemical company. One of the sources of supply for the material I

mentioned in my article, "Honey Houses and Their Equipment," is the American Marietta Paint Company. The trade name of their paints is Valdura.

Another source of supply for the materials here (Canada) is the CIL Company which was formerly associated with the Du Pont Company of America. I would imagine that you could obtain these materials from a Du Pont dealer in paints and varnishes nearby.

Answered by D. R. Robertson, Provincial Aplarist, Manitoba, Winnipeg.

Sale Value of Equipment

I am closing out my beekeeping business and I have considerable equipment to dispose of. Does it pay to advertise such a sale? What should the equipment sell for?

C. L. McLain Pinconning, Mich.

Yes, it pays to advertise good equipment but the price asked for it depends on how long the equipment has been in use. For income tax purposes a price depreciation as low as 5% a year is allowed; which means that the cost of the equipment will have been recovered in twenty years. So, if the equipment has been in use ten years, it should actually be worth half the present price of new equipment. When you offer used equipment for sale you should have a permit from the state in many cases and you should be able to furnish an inspection certificate to show that, although it has been used, the inspector found it to be disease free.

This page is devoted to alternation between recipes (January), questions, and "All around the Bee Yard." Send your questions or your recipes. Maybe our Editor may find time enough for that last subject.

TODAY'S WOMAN

by HARRIET M. GRACE

Director of American Honey Institute

McCall's Magazine has a catchy title for today's master jack-of-all-trades, the housewife. They call her the "womanager." As a "woman" she must not let her femininity get slipshod by the burdens of chasing children, shopping, running the house and arbitrating family disagreements. And she automatically becomes the "manager" of the household. So "womanager" is a word that fits the occupation it describes with the snugness of a pigskin glove.

Today's "womanager" is often ac-cused of living a life of idleness, as a card playing, gossip-mongering, party-loving, dabbling dilettante, surrounded by such a vast array of electrical gadgets and contrivances that she has to have a booster course in electronics to learn how to work them. But once she has learned the art of plugging into an electric socket, she can emerge from the cocoon of her kitchen, free to study the most efficient ways to waste time. Such a frightening picture of sheer usefulness is upsetting to the woman who is worth her space in the budget book. Now she can claim a title that dispells these foolish notions because as a "womanager" she cannot be thought of as an idle waste product of an incredibly high standard of living.

It is true that today's woman doesn't make soap, boil laundry, or churn butter. She is no longer harnessed to an endless drudge of back-breaking chores. But her job has shifted from that of worker to manager. The husband may bring home the bacon but it is not he who figures out how much that bacon must be.

The "womanager" does her own cooking and cleaning and then finds she is called upon for these duties:

1. She must fit the jigsaw puzzle in the lives of each member of her family into one integrated plan so their lives may operate within the framework of a family unit. The household must be managed to allow each family member to live his own life to the fullest and yet reserve time for family activities.

And that is not as easy as it aounds. To find time and space for everyone's hobbies, to let each daughter and son entertain friends, to encourage talents, to get the commuting husband to the bus or train on time and to welcome him again to a clean orderly, quiet house, to arrange for Scout meetings, P.T.A. meetings, and social obligations; still get the marketing and the cooking done, dishes out of the sink, floors swept, beds made and have the meals on time; that takes quite a bit of organization.

2. She must recognize that she owes allegiance to the community. School, church, voting, community projects, fund-raising campaigns, count on the Mrs. as booster and supporter.

3. She is no longer the dunce of the family. She is expected to keep herself informed and up-to-date. She is the center of most of the cultural activity of her home and her town. She must be able to converse with her husband's associates and to entertain them on short notice.

4. And foremost she must remain a woman. Her hair must be brushed, her lipstick on right, her skirt pressed, her nails filed. She must keep track of her appearance.

All of which boils down to one hard fact—in the daily life of the "womanager" there is not much time for dilly-dallying or loafing. Life is not boring but bustling.

Now, what has this to do with honey? Quite a bit. Here is how we at the American Honey Institute see the picture:

Today's woman does not work or think like grandma. She rejects all that will complicate her life and make her task more lengthy. The great popularity of ready-mixes, frozen foods, ready-to-cook dinners, precooked meats, washed and prepared fresh vegetables is not happenstance. It is not something the producer has forced on the "womanager"; rather it is what the lady of the house has forced the producer into offering.

Food must be ready to eat for meals

on the spur of the moment, easy to store and have many uses. Do you see the point? Honey adapts itself to this new mode of home life, with no fuss and bother on the honey producer. You don't have to pare, wash, cut up, dice, or otherwise prepare honey to make it ready to eat. The bee does that for you. You don't have to freeze or add preservative to honey to make it keep. Mother Nature does that for you. And you don't have to offer it in numerous forms so it can be used in a variety of ways; honey's simple form is basic to all cooking. How do you like that for a ready-made situation? When it comes to a product suiting the demands of the market, honey can step in and walk away with first prize.

But does the "womanager" know honey's modern appeal? We intend to see that she does. Here is how American Honey Institute directs its guns at the tender heart of the manager of a busy household. We offer only simple, uncomplicated recipes to the readers of food pages. We shun all of the fussy, frilly, time-consuming ones that might be good tasting, but also might never get tasted.

We hammer on honey's hospitality toward other foods. We show honey as a salad dressing, as a sweetening agent for beverages, cereals, fruits, or desserts, as a sundae covering, as a way to glaze meats, or as a simple spread for bread.

We stress in all our media (streamers, posters, news articles, pamphlets, advertisements) honey's long-keeping qualities. Buy it and store it, we say, if your family will let you keep it in the cupboard. Buy it in quantity, in five-pound containers and use that to refill a dripless pitcher. Keep honey handy; it's always ready for use.

Now, you too must build on this theme of honey's modern convenience. When you advertise locally (and you must!) point out honey's up-to-date qualities.

We've got a ready-made market apounding on our doors; let's open them and let in the profits!

Wilbanks Package Bees and Queens "Italians"



Now is the time to place your order for package bees and queens. All indications are that the demand will be heavy and we urge you to place your order early.

We have spent years developing and improving our present strain of bees. Breeding stock is tested and proven in our own honey producing apiaries. You will find our bees pleasing in appearance, easy to handle and tops in production.

Shipping season starts about April 1st. Shipments by express, parcel post or your truck. We guarantee live delivery, a health certificate with each shipment and service on which you can depend.

				-	PRICES -		
					1-9	10 - 49	50 - up
2 lb	. pkg. with	young	laving	queen.	\$4.25	\$4.00	\$3.75
3 lb	, pkg, with	young	laying	queen	5.35	5.10	4.85
					6.45	6.10	5.85
					1.40	1.30	1.20

Quality Does Not Cost - It Pays

The Wilbanks Apiaries

Claxton, Georgia



Carniolan and Caucasian QUEENS

Best assurance for good honey crop is young laying Carniolan or Caucasian queens. They are the answer for gentleness and production. Booking orders for early March. QUEENS—1 to 49—\$1.40, 50 to 100
—\$1.30, 100 up \$1.20.
No packages this season.

W. D. REAMS

Box 87

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HONEY WANTED

Carloads or less than carloads. Quote best cash price delivered to us. All grades; send samples.

Neiman Brothers Co., Inc.

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GREY CAUCASIAN PACKAGE BEES and QUEENS

Also select Italian Queens.

Queen shipments ready by April 1, 1958.

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Package Bees and Queens



		PAUNAGUS				SCREES WIL	an .	
	Dadant	"Starline"	Hybrid	Queens:	Jensen's "Magr	nolia State"	Italian Qu	Beens:
		1-24	25-99	100-up	1-24	25-99	100-up	
3	Lb	\$4.80	84.55		84.50	\$4.25	\$4.00	
	Lb	5.90	5.65		5.00	5.35	5.10	
	Lb	7.00	6.75	6.50	6.70	6.45	6.20	
	QUEENS-		_ \$1.05	\$1.55	\$1.45	\$1.35	\$1.25	
æ	sppea as	d Marked	Free			Air Mail	Postage F	Paid.

JENSEN APIARIES - Macon, Mississippi -



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plus freight

at your dealer's or in his catalog

TRADEMARK STEWART TAYLOR Camargo, Ill.

SMOKE AT YOUR FINGERTIPS - AND RARIN' TO GO!

SUNKIST STARLINE QUEENS

We offer you the "Best by Test" Starline Hybrid Queens for 1958. That extra production from these queens is 100% extra profit over the regular stock.

Prices For 1958 1 - 25-\$1.70

25 - 99-\$1.60

100 - up-\$1.50

SUNKIST BEE COMPANY

Convent, La.

MEETINGS





HERE and THERE

Early Please

For meetings that will take place the first half of the month, make sure the information gets into the issue of the month before (example, for news of a meeting on the 5th of March notice should be in the February issue and be here by the 20th of January). For meetings after the 15th of the month we should get the announcements before the 20th of the month of publication (example for a meeting January 18th, we should have the announcement before the 20th of December).

Norfolk County (Mass.) Walpole, Feb. 3

The Norfolk County Association will hold its next meeting at the Norfolk County Agricultural School, Walpole, Mass., on February 3 at 8 P.M. This will be an interesting winter meeting. As usual delicious refreshments will be served.

Edith L. Colpitts Corres. Sec.

Middlesex County (Mass.) Waltham, Feb. 22

The next meeting of the MIDDLE-SEX COUNTY ASSOCIATION (Mass.) is scheduled for Saturday, February 22, at the Waltham Field Station. There will be a potluck supper followed by a business meeting. Final plans for the forthcoming annual Spring Flower Show will be discussed, and schedules distributed for workers to man the annual honey exhibit sponsored by our association.

L. C. Proctor Corres. Sec'y.

Connecticut, New Haven, Feb. 22

The winter meeting of the Connecticut Association will be held Feb. 22, 10 a.m. at the Connecticut Agricultural Experiment Station, Huntington Street, New Haven, Conn.

A speaker or panels on various beekeeping subjects will be the program for the day.

Dinner will be potluck with those

attending bringing a dish of food. Coffee will be furnished.

Beekeepers and visitors interested in bees are cordially welcome to attend.

Philemon J. Hewitt, Jr. Chairman of Publicity

Virginia, Natural Bridge, Feb. 27

The Virginia State Association will hold its regular winter meeting on February 27 and 28 at Natural Bridge, Hotel.

All Virginia beekeepers make plans to attend. We expect to have a very interesting program. There will be one or more out-of-state speakers, moving pictures and a display of bee equipment. This will be a good time to visit the Natural Bridge, one of the wonders of the world, if you have never seen it.

Henry W. Weatherford, Sec'y.-Treas.

Midwestern, (Missouri) Kansas City, Feb. 9

The Midwestern Association will meet at the I.O.O.F. Hall, 812 Westport Road, Kansas City, Missouri on February 9 at 2:30 P.M. The subject of feeding, both stimulative and antibiotic, will be discussed. Pictures pertaining to beekeeping will also be shown. Everyone welcome.

The new officers elected and installed for 1958 are President, J. F. Maher, Kansas City; Vice President, A. W. Magers, Kansas City, Kansas; Secretary, Carroll L. Barrett, Gladstone, Missouri; Treasurer, Robert W. Cornforth, Grandview, Missouri; Auditor, John C. Dods, Kansas City, Missouri; Librarian, Dorothy F. Barrett, Gladstone, Missouri; and Director, .Vm. B. Brite, Gardner, Kansas.

Carroll L. Barrett Sec'y.

Apicultural Society of Rhode Island, Providence, March 6

Farm and Home Show program, Ballroom, Cranston St. Armory, Providence, March 6th. Program: 7 p.m.—Uses of Honey in Baked Goods, Miss Gertrude A. Cooke, Dietitian, V.A. Hospital, Providence.

Honey Cookery Awards— Sponsored by the ladies of the Society.

8 p.m.—Motion pictures—Bees and Honey, courtesy of the Farm Film Foundation, Washington, D. C. and Bees for Hire, courtesy Texas Co., Boston, Mass.

9 p.m.—Film lecture by Edwin J.
Knight, Sr., prominent R. I.
apple grower—The Importance of the Honey Bee in
Apple Pollination.

As part of the Society's Honey Promotion activities it is planned to distribute 5,000 2-oz. jars of honey to housewives attending the show. Our thanks to the many honey packers for their cooperation in this effort and to the R. B. Willson Co. for their generous gifts.

John P. Card, Sec'y.

Idaho Officers

The Idaho Association elected new officers at their annual meeting Dec. 20-21 with outgoing president Gordon Dickerson of Parma, Idaho, in charge of the sessions.

Robert Shaver of Gooding was named president for 1958, with Neil Miller of Blackfoot, vice president, and Albert M. Larsen, of Burley, secretary-treasurer. The delegates voted to meet with beekeepers of Oregon and Washington in their tristate meeting in Pendleton, and take up mutual problems.

Glen Perrins Ogden, Utah

Oregon Officers

The Oregon Association held their annual meeting in December and elected the following officers: Dr. H. A. Scullen, professor emeritus at Oregon State College, president; Delmar Smith, Central Point, vice president, and Oliver Petty, Albany, secretary-treasurer.

Glen Perrins Ogden, Utah Vermont Annual, Barre, Feb 11

The annual winter meeting of the Vermont Association will again be held in conjunction with the Vermont Farm Show, Inc., at Barre, Feb. 11th. The beekeepers luncheon and meeting will begin at 12:30 p.m. at the Country House Restaurant. Turkey dinner \$1.75.

Among the afternoon speakers will be Mr. Gravely, Eastern Branch Manager of the A. I. Root Co. and Mr. Thompson of the Vermont Department of Agriculture. Everyone is welcome whether they are beekeepers or those interested in nature or agriculture.

Pacific Northwest to Meet Next in 1959

The Pacific Northwest Association met and decided to convene every second year from now on, and set the next meeting for 1959 at a site in Washington to be announced later. Delegates also voted to invite the National Federation to hold its 1960 convention in the Pacific Northwest. The group did not elect officers.

Glen Perrins Utah

BEEKEEPERS' DAY

Kansas State College, Manhattan Saturday, February 15, 1958 Room 10 Umberger Hall

Morning Session

Dell E. Gates, Assistant Professor. Extension Agricultural Specialist and Entomologist, Kansas State College, presiding

9:00 Apiary Inspection Report, July 1, 1956-June 30, 1957.

> R. L. Parker, State Apiarist, Kansas Entomological Commission, Manhattan

9:15 Report of the Apiary Inspectors of America and American Beekeeping Federation Meetings.

Roger B. Boren, Assistant State Apiarist, Kansas Entomological Commission, Manhattan

9:30 Kansas State Beekeepers' Association.

> Ezra P. Barkman, President, Kansas State Beekeepers' Association, Hillsboro

10:00 Control of American Foulbrood by Antibiotics.

Joseph O. Moffett, Assistant Professor of Entomology, Department of Entomology. Colorado State University, Fort Collins, Colorado

10:45 Discussion

11:00 Anatomical Factors of the Honeybee Involved in Increased Honey Production.

G. H. Cale, Sr., Editor American Bee Journal, Hamilton. Illinois

11.45 Discussion

12:00 Lunch Hour

Afternoon Session

Roger B. Boren, Assistant State Apiarist, Kansas Entomological Commission, Manhattan, presiding.

1:30 Antibiotics and Chemicals vs. Burning for the Control of American Foulbrood.

Joseph O. Moffett, Assistant Professor of Entomology, Colorado State University, Fort Collins, Colorado

2:15 Improvement in Honey Production Through Breeding.

> G. H. Cale, Sr., Editor American Bee Journal, Hamilton, Illinois.

3:00 Roundtable Discussion.

Leaders: J. O. Moffett, G. H. Cale, Sr., R. B. Boren, and R. L. Parker

Italian Package Bees and Queens For 1958

EUGENE WALKER Route No. 2 — Box 892 Live Oak, Calif.

ITALIAN BEES & QUEENS 3 lbs. with queen \$4.00 4 lbs. with queen 5.00 Extra queens \$1.15 Air Mail Health certificate & live delivery guarantee

> CLOVER BEE FARM Hessmer, La.

BETTER BRED QUEENS — Three Banded Italians

To supply your bees and queens efficiently and please you is our greatest desire. Please book early. No deposit.

2 lb. w/q Queens 3 lb. w/q to 24 25 to 100 1.15 3.75

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THRIFTY BEES-Combless packages and queens. Three-banded Italians only. Remember — THRIFTY BEES are GUARANTEED to PLEASE. write for prices.

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ITALIAN BEES and QUEENS 2 lb. pkg. w/q. \$3.45
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Extra Queens 1.05
Live delivery guaranteed and health certificate with each shipment. GASPARD BEE CO., Hessmer, La.



Queens-

25 to 99 100 & up 1 to 24 \$1.60

E. J. Bordelon Apiaries Moreauville, La.

Phone 2583

DARK ITALIAN QUEENS

We still have plenty of open dates for May delivery NO MORE PACKAGE ORDERS. THANKS.

Weaver Apiaries

Navasota, Texas

California Caucasians

Gentle and industrious Caucasian queens. NEW - Midnite Hybrid Caucasian queens. J. E. Hastings breeders used for Regular queens. Ready to ship about April 10th. 10% books your order - Balance due two weeks prior to shipment. Air. Mail

to shipment. Air Mail.

Number of Queens

1 to 24

25 to 99

100 and over

Quality and Service Doesn't Cost — IT PAYS

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R. 2. Box 83

Phone Sherwood 23881



National Society for Crippled Children and Adults 11 So. LaSalle, Chicago 3

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This practice has proved successful in many different areas for several years.

3 lb. pkg. bees with 2 queens each \$5.75 Weight 9 lbs. each

2 lb. - 1 Q. each \$3.75 Shipping Wt. 8 lbs. each

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The Scramble - A Contest



January Results

January Results

Dr. John Eckert, University of California
For the start of this new contest results
were good. A few made a bum steer;
the most were right. There were thirty
answers from seventeen states and one
province. So, John, you are a popular
guy. Dr. and Mrs. Eckert are now in
Australia, vising Australian provinces and
scheduled for six months at the Waite
Agricultural Institute at the University
of Adelaide on a Fullbright scholarship.

He is to work in beckeening projects, in-He is to work in beekeeping projects, in-cluding the Ligurian bees of Kangaroo

Island.

Those who bestowed a fun title on the good Doctor suggested these Profound Scientist and Prolific Writer; the Saboteur of Foulbrood; the Chemotherapy Missionary; Jack of All Trades; Old Doc Eckert, the Bee's Friend; Man of Vision; California's King Bee; Dean of Apicultural Professors; Apichemologist; Beeconomist; Hi Fi of Beekeeping. Winners will be announced in March.



DADANTS STAR-LINE HYBRIDS and

Wicht's Three-Band-

WICHT APIARIES

406 Miller St. Hattlesburg, Miss.
"Quality, Service and Satisfaction"

QUEENS

Caucasians

1 - 24 25 - 99 100 up 2 lb. pkg. w/q. \$4.30 \$4.25 \$4.00 3 lb. pkg. w/q. 5.40 5.30 5.10 Nice large queens 1.25 1.15 1.05

Again this season we have enlarged our queen yard to fill your orders promptly, so send us your order of 1 or 1000. Producer of Royal Jelly.

MITCHELL'S APIARIES Bunkie, La.



Scramble for This Month

In the announcement in January, we said contestants could piece together the parts and send them with their answers. Almost every one did. Fine! We appreciate it. Whether or not you do, your answer is still eligible. The winners will take time to decide upon so let's make a change. Send your answers anytime in the month and they will be judged and the winners announced the second issue after that—February in April; January in March. Watch for your name—perhaps. Best answer a three year subscription and choice of a book; second a two year subscription; third a one year subscription; four runners-up at four months each. Who is it? Where does he live? What does he do? What fun title would you give him? No restrictions. Play new or play again. Good going.

HONEY WANTED

Cut Comb and Extracted Advise what you have

T. W. BURLESON & SON WAXAHACHIE, TEXAS

Johnson Dovetailing Equipment for the beekeeper's shop.

Write for details.

Carl E. Johnson Company 1557 Gregory Avenue Lincoln Park, Michigan

Yellow Italian Bees and Queens

Known the world over for their gentieness and heavy producing ability. We guarantee prompt, safe delivery. Health certificate assured. Shipping starts April 10.

2 lbs. with queen \$3.50 3 lbs. with queen \$4.50-Young Queens \$1.00 each, airmail

JOHNNIE ARNOUVILLE

Box 106 Hamburg, La.

HOLLOPETER'S ITALIAN QUEENS IN SEASON White Pine Bee Farms, Box 800, Rockton, Pa.

-The Market Place-

BEES AND QUEENS

CARNIOLAN and CAUCASIAN QUEENS— \$1.90 each. I have the late Albert G. Hann strain of bees. They build up fast and make lots of white comb honey. The and make lots of white comb honey. The gentlest of all bees. I have increased my equipment to supply the demand. Roy Waddell, Rt. 3, Woodruff, South Carolina.

ITALIANS Packages, Queens. Martz, Rt. A2, Box 846, Vacaville, California.

BRIGHT ITALIANS: 3 lbs. with Queen, \$4.75, 2 lbs. with Queen, \$4.00, Queens, \$1.25, Sheppard Apiaries, Aberdeen, North Carolina.

CARNIOLAN AND CAUCASIAN, 2 lb. package \$4.00 each, 3 lb. package \$5.00 each, Untested Queens \$1.00 each, Booking orders for '58. Tillery Brothers, Greenville, Ala.

3-BAND ITALIAN and Carniolan bees—3-lbs. with queen, \$4.90; 5-lbs., \$6.80. Queens \$1.25. Luther Pickett, Efland, N. C.

THE GOLDEN APIARIES Italian bees. 3-lbs. with untested queen, \$4.20 each; 4-lbs. with untested queen, \$5.00 each. Queenless packages, deduct 86c per pack-age. Live delivery and a health certificate with shipment. Maurice Roy, Hessmer, Louisiers. Louisiana.

FOR SALE

ROYAL JELLY. Nationally known "Api-Vitalex" brand, hi-potency Royal Jelly products. Capsules and Beauty creams. Wholesale distributors and agents sought everywhere; particularly among Bee-keepers. Big profits available. Write air-mail for prices and literature. "Api-Vita-lex" Dept. ABJ, Box 6674, Medical Center Station, Dallas 19, Texas.

FOR SALE—Royal Jelly and The Little Queen Royal Jelly Extractor. Royal Jelly Enterprises, 1817 Los Carneros Avenue, Napa, California.

COMPLETE COMMERCIAL honey producing business in South Florida consisting of 1000 hives, bees on location, extracting plant, trucks, extra equipment, supplies and other items too numerous to mention. Excellent locations in orange and one of the best queen rearing sites in U.S. Terms to interested buyer. Inventory on request.

COMPLETE COMMERCIAL honey producing business in Western, N.Y. consisting of 300 hives ready for winter, 50 acres land with new extracting plant, excellent loca-tions. Box RB c/o American Bee Journal.

AGE FORCING me to seil all my bee equipment. Everything needed to run 200 colonies. Inspection guaranteed, time of sale, in excellent condition. Joe Angell, 49930 N. Gratiot, Mt. Clemens, Michigan.

LARGE COMB honey outfit. Some extract-ed equipment. Idaho's best producing area. Mrs. Fred Robinson, 503 Fifth St. S., Nampa, Idaho.

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300 COLONIES of bees, 8's and 10's. Extra equipment, including extractor. Part or all for sale. Priced to sell. 424 E. Price, Paris, Texas.

Copy for this department must reach us not later than the tenth of each month preceding date of insue. If intended for classified department it should be so stated when advertisement is seat. Rate of Classified advertising — 15 cents for each word, letter, figure or initial, including the name and address. Minimum ad, ten words.

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100 HIVES complete. Reasonable offer accepted. Clarence Heide, Lamoni, Iowa.

FOR SALE-400 8-frame colonies in good equipment. Located in Colorado, Box MB, c/o American Bee Journal.

FOR SALE—85 colonies bees and 3800 pounds fine comb and extracted honey, equipment, jars. Buyer may take over good established business and leave bees on location if desired. Robert Usrey,

COMPLETE OUTFIT-100 Modified Dedant hives, supers, extractor, etc. Cheap. tuckman Orchard, 17th Monroe St.,

FOR SALE—350 colonies, 2 stories, 10 with excluders, D. M. and Superior quality hives 1 and 2 years old. Now located in almonds. H. G. Dunn, Box 3327, Doublin Blvd., Hayward, Calif.

100 or more hives bees with honey, one or two story. Good locations in Texas. Clyde Cobb, Belleville, Ark.

FOR SALE by widow of owner—150 colonies, extra supers, extracting and miscellaneous equipment. Write or phone.
Mrs. A. S. Carm, 8300 Kimball, Skokie, III. Or 5-7937.

FOR SALE—36 clean, two story, ten frame colonies in eastern Illinois. Good equip-ment. L. R. Stewart, Newport, Ind.

ROYAL JELLY CAPSULES: HIGH PO-TENCY, FIFTY MGM. STRENGTH. Hermetically sealed capsule. Vial of THIRTY (30) capsules \$6.50 retail. Your cost \$35.10 per dozen. One free with dozen brings cost down to \$2.70 net per unit. Container of 1,000 capsules \$7.50. Bulk prices to quantity buyers. Fabulous profit opportunity! WHOLESALE ONLY! Garden State Laboratories, 1601 Hollywood Road, Linden, N. J.

31 acre farm \$7,000, ½ value. Ideal cli-mate, boating, fishing, good water. Write for details. Frank Detwiler, Rt. 6, Box 379, Texarkans, Texas.

For Sale: 1957 Model Kelley Hive Loader. Box 284, Crystal City, Texas.

FOR SALE—900 Colony Bee Outfit in north central Montana. H. H. Harwood, Chinook, Montana.

FOR SALE—American Bee Journals 1937— 1955 inclusive. Lavern Depew, Auburn, N. Y.

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WANTED-Extra white and light amber honey. Let us ship you the containers. Seil us your honey for CASH on delivery. The Hubbard Apiaries, Manufacturers of Bee Supplies and Comb Foundation, Onsted, Mich.

WRITE FOR SHIPPING TAGS and current quotations on rendered beeswax. Any amount from one pound up bought. If you have 25 pounds or more, save 25% by lett-ing us work it inte foundation for you. Waiter T. Kelley Co., Clarkeen, Ky.

White, Extracted and Buckwheat. Send sample and price. Trapha gen, Hunter, N.Y.

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PURE TUPELO and wild flower in 60's. Honey candy. En-R-G Foods, Inc., P. O. Box 232, Lancaster, Pennsylvania.

LARGE QUANTITY light amber unheated honey in steel drums with remove heads. York Bee Company, Jesup, Ga.

CLOVER HONEY, sixtles or drums, NORTH CENTRAL HONEY PRODUCERS LEAGUE, Route 2, Beloit, Wisconsin.

MICHIGAN'S FINEST WHITE CLOVER HONEY. New Sixties. Fully ripened. You'll be pleased. Sample 20c. John Mc-Coll, Tecumseh, Michigan.

WHITE CLOVER HONEY in sixties. Ralph Gamber, 910 State, Lancaster, Pa.

CLOVER HONEY, sixties or drums. NORTH CENTRAL HONEY PRODUCERS LEAGUE, Box 211, Belleville, Wisconsin.

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BRAND MELTERS and all kinds of bee supplies. Catalogue free. Hodgson Bee Supplies Ltd., 555—13th Ave., New West-minster, B. C.

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SUPERS \$1.00, Four-cleat COVERS AND BOTTOMS \$.75 FRAMES 1M \$80.00, 5M 975.00, 10M \$70.00. Write for price list. Johanson's Bee Farm, 11360 Redwood Johanson's Bee Farm, 11360 Highway, Healdsburg, California.

WANTED

WANTED about 400 bee colonies 2 or 3 stories complete. California or neighboring states. Sandor Meszaros, 3409 Sixth Ave., Arcadia, California.

NATIONAL DISTRIBUTOR of vitamins and health products wants direct quotations in Royal Jelly. Bulk and related pro-ucts. Esco Vitamins, 7 W. Broad St., Mount Vernon, New York.

WANTED—From 5 to 2000 hives and equip-ment in good condition. Within 600 miles Kansas City. Bee-Tree Aplaries, 6632 Raytown Rd., Raytown 33, Mo.

WANTED—To buy bee outfits and bee equipment in any area. We have buyers for outfits, regardless of size. SIOUX HONEY ASSOCIATION, Supply Dept., Sioux City, Iowa.

SEEDS AND PLANTS

"HONEY PLANTS-Ask for Illustrated 1956 catalog. One packet seed each 6 unusual honey plants \$1.00, Vitex negundo, one year plants, 4 for \$2.00, dozen \$3.00, Pellett Clover root divisions, 25, \$2.00; 100, \$5.00, postpaid. Pellett Gardens, Atlantic, lower.

POSITIONS and HELP WANTED

WANTED: Experienced queen breeders and beekeepers. Give full information in first letter. York Bee Company, Jesup,

WANTED: Dependable bee men, good salary, modern 5,000 colony outfit, also modern housing furnished if desired, seasonal, or year around work. James E. Bunch, Sunnyside, Washington.

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And SUPERS with SAMSON CORNER JOINTS. Only a bench saw and hand tools required. Our low cost Copyrighted BLUE PRINTS and INSTRUCTIONS cover everything and can save you many dollars. Write for full particu-lars. E. R. TAYLOR, Malcom, lows.

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Science is international. So is Ber World, a scientific journal published monthly by the Bee Research Associa-tion. Editor Dr. Eva Crane.

scription \$6.00 a year, or \$6.50 includ-membership of the Bee Research Association.

American Bee Journal Hamilton, Illinois Agent for U. S. A. and Canada WANTED: Two men for 1958 package sea-son. Write for full information, giving experience, references, age and height. Howard Weaver, Navasota, Texas.

WANTED: Experienced man for queen and package production. Seasonal or year around. Lionel Hopkins, Maringouin,

WANTED: Two or more experienced bee men for coming season. Good wages and opportunity for right man. Give experience, age and reference. Bees located in Arizona, Idaho and North Dakota. Powers

WANTED—Experienced queen breeder willing to give his best practical efforts to 7-day production of queens during busy season. Write qualifications and expected salary. Box QB, c/o American Bee

HELP WANTED—Top experienced man, \$400 to \$450 during summer months. Box B, c/o American Bee Journal.

WANTED-2 men to work in our apiaries. Top wages, 5 day work week. Other advantages. Schultz Honey Farms, Ripon Wisconsin.

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-Crop and Market-

by M. G. Dadant

Honey seems to be moving retail in a satisfactory manner throughout the entire country and in the Canadian provinces, in spite of some few reports of slow sale, mostly in areas where the stock of honey is not embarrassing at any rate. Perhaps where the effort needs to be greatest, the most work is done in promoting honey.

Amount On Hand

It is our estimation that there is a larger amount of honey left in the hands of producers than at this same time last year. Figures from the government are not yet available. Most of this honey is in the West, but there are considerable quantities in Ohio, Michigan, Wisconsin, and in the Northern Plains States. In many cases this is due to the refusal of the producer to accept the prices offered, his appraisals being geared to the prices of a year ago. Certainly in the Eastern and Central states there is no excessive amount of honey left, except possibly in the amber grades, since more amber honey was secured owing to the slow and mixed flows: Naturally some producers who are in the habit of holding for their later supply have more on hand than the average. Stocks generally now on hand in producers holdings are either amber or else held for a remunerative figure.

One large Canadian cooperative has better than four million pounds still available. The crop was large in 1957, and the disposal efforts perhaps had been left to drag during the earlier smaller crops. In fact efforts are being made to place some restrictions on importations from the U.S., particularly in bottled lots, but also to some extent, in bulk.

All in all the picture is not as bright as a year ago for shortage of honey before the new crop appears.

How Is Jobbing Demand

No question but the jobbing demand is up from a month ago, but we would not surmise that it is at better figures than earlier offered. Some packers planned to run stocks as low as possible up to Jan. 1, and to buy after that date. Others are simply cautious in their buying. This does not make for a quick demand for stocks still on hand. We are quite surprised at the ready movement of most southern honeys, though there is still a supply in Florida. Texas seems to be well sold out, but the Southeast reports that perhaps half of the chunk honey remains unsold at this date.

We look for a gradually increasing but careful buying policy on the part of the packers. The lack of a foreign demand equal to a year ago, together with the heavier crop in Canada have dried up a surplus demand which always has a helping hand with the market price. Then the amount of

Honey Wanted-Cars and less than C. W. Aeppler Co., Oconomowoc, Wis.

amber grades has also been a deterrent.

Honey Prices

Not much change from prices of a month ago. In East and Central West most white honey is offered at 13 to 14 cents; in the Intermountain territory at about a cent less though we have heard of as low offers as 11 cents for good white honey. Amber, in most instances a cent or more less. States of a short crop have had little trouble in cleaning up quite satisfactorily. Those with a larger crop, are experiencing some difficulty.

Price Supports

The use of price supports has largely been restricted to the larger producing states. Government sources have given no later data, at this time (Jan. 22) than December. Most beckeepers still seem intent on holding on, if they have honey left, for a better market, perhaps taking advantage of price support at the last available moment, if they have to, but most are not optimistic over this procedure.

Conditions

We might remark that it has been a good many years since we have had such universally good climatic conditions as this year. Earlier drought in the East and in the Plains States has been followed by copious moisture. In fact moisture is above ordinary everywhere.

EXPRESS RATES ON PACKAGES

The Railway Express Agency proposes an increase in express rates on package bees. They want 15% more, and present rates are now one and a half times first class. From 25% to almost 100% of the cost of packages at present rates goes to pay transportation costs. In May 1932 the rates were reduced from one and one half times first class to first class and a sound business was built up which depended almost entirely on the Railway Express Agency for moving the bees. But in Sept. 1949 the rate was

again raised to one and one half times first class and the volume of shipments has since steadily declined. In 1948 the total volume of packages was 461, 393. In 1951, after the increase, the total was 283,979, a decline of almost 40%, and a corresponding decline of almost 50% in the number of shippers. Today about 50% of packages move by trucks and some by parcel post. The claim is made that damage to packages costs the Railway Express Agency too much, but actually the loss is less than 1%, no more and often less than for other commodities.

In view of these facts the express on package bees should be reduced to first class. Then a 15% increased tariff above that would not be too harmful. Reduction to first class would stimulate the entire industry and, since the Federation plans strong marketing ventures for honey, this better financial structure would greatly stimulate trade in bees and also in express revenue. It is absurd that commodities not so essentially beneficial should be given preference in transportation costs.

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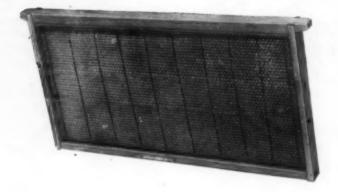
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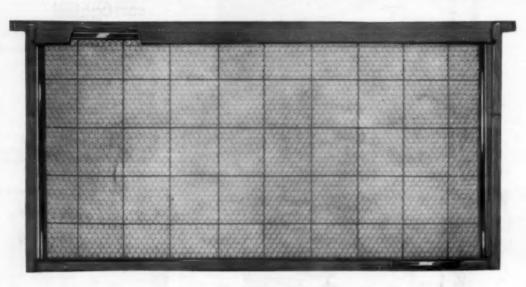
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